

# Lab 8 - Pseudocode

Friday, April 24, 2020 2:04 PM

System functions - fuel control and temperature monitoring

- Analog input simulates the voltage generated when the gas pedal is pressed.
- LEDs indicate how hard the pedal is pressed
- Continuous engine temperature monitoring

Pseudocode design to implement functions

## Initialization:

- Initialize timer		// used for delays
- Initialize ports	Digital Digital analog	// for 8 LED module // for LCD Reset // for analog input
- Initialize SPI Interface • Reset LCD Display		// temp display
- Initialize I2C Interface • Configure TMP3 module		// temp sensor
- Initialize ADC		// analog input

## Operation:

// Continuous loop - operational mode

Initialize Continuous loop

- Read ambient temperature and convert to °F
- If ambient temperature is  $\geq 80$  °F 

	// Overheated
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  - o Flash message on LCD Display
  - o Set overheat flag
- Else
  - o Display temperature on LCD Display
- Read ADC
  - o Illuminate LEDs to reflect pedal deflection